

VISIT...

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Tip

Skim for clues.

Directions: Answer the questions.

- 1. An important event in Edison's boyhood was**
 - A** inventing a motion-picture camera.
 - B** working at a cement plant.
 - C** saving someone's life.
 - D** winning a fortune.

- 2. Reread the time line on page 512. During which decade was the phonograph invented?**
 - A** 1860s
 - B** 1870s
 - C** 1880s
 - D** 1890s

- 3. Why might you want to thank Thomas Edison?**
 - A** He was a great writer.
 - B** He invented many of the things we use every day.
 - C** He told funny stories.
 - D** He started an art museum.

- 4. Based on what you have read in the selection, would you have enjoyed working with Thomas Edison? Explain why or why not.**

- 5. How did Edison make everyday life easier? Use details from the selection in your response.**

Writing Prompt

Write a news article about one of Edison's inventions. State what the invention is, when it was created, and what it does. Include reasons why the invention is important.



**NORTH
POLE**



**SOUTH
POLE**



Talk About It

What images come to mind when you think about the North and South Pole? Why would it be exciting to explore these places?



Find out more about the North and South Pole at www.macmillanmh.com

Vocabulary

frigid	expedition
treacherous	labor
triumph	dismantled
uninhabited	abandon



Word Parts

By breaking down an unfamiliar word into parts, such as the **Root**, the **Prefix**, at the beginning of the word and the **Suffix**, at the end of the word you can figure out its definition. For example, *uninhabited* (*un-inhabit-ed*) means “not lived in.”

ICE

and More

ICE

by Tamika Washington

People often think of the North and South Poles as similar frozen wastelands. They are both places with **frigid** temperatures and few people. However, the North and South Poles are not much alike.

The North Pole has no land, only thick sheets of ice. Temperatures rarely go above 32°F, which is the freezing point for water. Most of the time, the thermometer stays below zero. Winter temperatures as low as -30°F are common.

Despite such **treacherous** conditions, people tried for many centuries to reach the North Pole. Then about 100 years ago, two men were able to **triumph** over this tough environment. Robert Peary and Matthew Henson reached the North Pole on March 8, 1909. It was not an easy trip.

There are few things more dangerous than crossing the Arctic on foot. Explorers can face many problems: freezing temperatures, sudden storms, even starvation. Most of the area is **uninhabited** by people. Few people can live in such a harsh place.



One might think that with freezing temperatures for most of the year, the ice pack would be thick and hard. However, this is not true in the Arctic. The movement of ocean currents under the ice causes constant changes on the surface. Sometimes the ice breaks apart, opening lanes of water called “leads.” Anyone who falls into a lead can drown or freeze to death in minutes.

Peary, Henson, and the other members of their **expedition** ran into this problem constantly. They learned to move in packs of three or four men, so that if something happened a member of the team would be nearby to help. Henson once slipped into a lead and was rescued just in time by his Eskimo assistant, Ootah.

Another time, four members of Peary’s team became trapped on an ice island. The island was formed when leads opened around their igloo in the middle of the night. One of the men woke up just in time, or they would have floated out to sea.

The men built igloos each night to protect themselves from the wind while they slept. An igloo is a small hut made of hard, packed snow. Cutting the blocks in the freezing cold was back-breaking **labor**. Sometimes the wind was very strong, and it would **dismantle** the igloos before morning.

Some members of Peary’s team gave up and turned back. But Peary and Henson refused to **abandon** their expedition. Their hard work paid off. They became the first people to reach the North Pole!



Reread for Comprehension



Generate Questions Problem and Solution

A Problem and Solution Map helps you ask questions to figure out problems and solutions in a selection. Reread “Ice and More Ice” and use your Problem and Solution Map to identify problems the writer presents and the actions that are taken to solve them.

Problem	
Attempts	Outcomes
Solution	

Comprehension

Genre

Nonfiction gives information and facts about real people, places, events, and situations.



Generate Questions

Problem and Solution

Look for actions or steps taken to solve a problem. As you read, use your Problem and Solution Map.

Problem	
Attempts	→ Outcomes
	→
	→
Solution	

Read to Find Out

What steps does Ernest Shackleton take to rescue his crew members?



SPRIT OF ENDURANCE

*by Jennifer Armstrong
illustrated by William Maughan*



When Ernest Shackleton was young, he fell in love with books and adventure. At 16 he set off to sea to explore the world. His most famous adventure took place in Antarctica in January of 1915. On Shackleton's third expedition to Antarctica, the **frigid** waters on the Wedell Sea that borders Antarctica froze over. Shackleton's ship, the *Endurance*, became stuck in the ice. Shackleton's goal was to be the first explorer to trek 1,500 miles across the **treacherous** continent. Would he and his crew **triumph**? Or would the ice prove to be too much?

The weather outside *Endurance*'s cozy cabins was terrible. Furious winds howled across the ice. Blizzards drove snow into drifts against the sides of the ship. Sometimes the wind was so fierce that it pressed the ice floes against *Endurance*. The ship's wooden timbers squeaked eerily as the pressure grew stronger. The force of the ice was so great that Shackleton began to worry that *Endurance* would be seriously damaged. What if they were forced to **abandon** the ship?

One night in July, at the height of a winter storm, the pressure grew stronger than ever. Shackleton shared his fears with the captain, Frank Worsley.

"If the *Endurance* does have to, well, get left behind, we will manage, somehow," Worsley said to the Boss.

Shackleton replied, "We shall hang on as long as we can. It is hard enough on the men as it is. Without a ship in which to shelter from these blizzards, and in this continuous cold—" He broke off and paced the cabin. He didn't want to think about it. But as commander of the **expedition**, Shackleton had to prepare for the worst.



The members of the Endurance expedition, photographed as the ship sailed south. Shackleton is in the center, in the hat and buttoned white sweater. Second-in-command Frank Wild is standing behind Shackleton's left shoulder. Next to Wild is the captain of Endurance, Frank Worsley (in the white sweater and seaman's cap).



Frank Hurley (left) and the ship's meteorologist (weatherman), Leonard Hussey, play chess during a night watch.

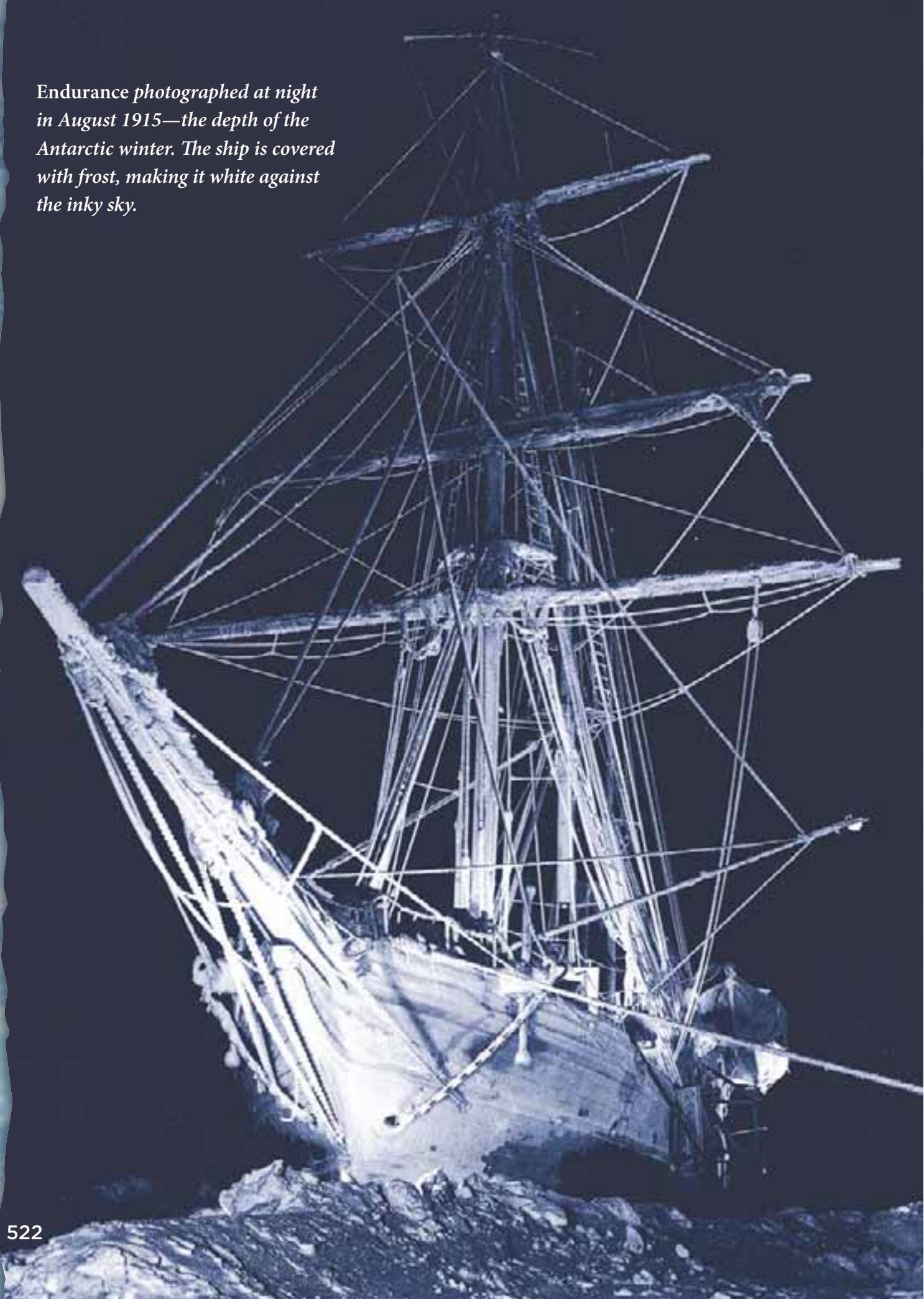
The ice continued to press against *Endurance* through August and September. On some days, it rammed the ship so sharply that it knocked books and tools and equipment off shelves and made the masts tremble like twigs. The men were becoming frightened and jumpy. Each time the ship let out a squeak or groan from its straining hull, they held their breath.

The crew **dismantled** the dogloos and brought all the animals back on board because they were afraid that the ice would break up under the dogs. One day in October, the ice pressed nonstop against the sides of *Endurance*, pushing the ship over on its port side. Everything that wasn't fastened down crashed onto the decks. For several terrifying minutes, the men thought the ship was done for.

But the pressure stopped, and *Endurance* settled back into place. They were safe—for now.

Then, in the third week of October, the pressure started up again and continued without relief. *Endurance* groaned and creaked as the ice squeezed from all sides. The timbers began to buckle and snap. Water began leaking into the hold.

*Endurance photographed at night
in August 1915—the depth of the
Antarctic winter. The ship is covered
with frost, making it white against
the inky sky.*



The crew took turns at the pumps, trying to keep the water out, but it was no use. On October 27, Shackleton looked around at the ship, which was being crushed like a nut in a nutcracker before his eyes.

“She’s going, boys. I think it’s time to get off,” he said.

Then the crew of *Endurance* abandoned ship—in the middle of the frozen sea.

Luckily, the destruction of *Endurance* happened in slow motion. This gave the crew plenty of time to unload food and equipment. As the ship continued to break up, the pile of gear on the ice grew larger: suitcases, books, clocks, sleeping bags, guns, crates of flour and sugar, clothes, lifeboats, diaries, axes, scrap lumber, toothbrushes, buckets—everything that could be taken off the ship was removed. The crew worked without a break. Their survival would depend on saving everything that might come in handy.

Finally, exhausted, they pitched their tents and crawled inside to sleep. Meanwhile, the timbers and rigging of *Endurance* snapped and crashed onto the deck of the dying ship.

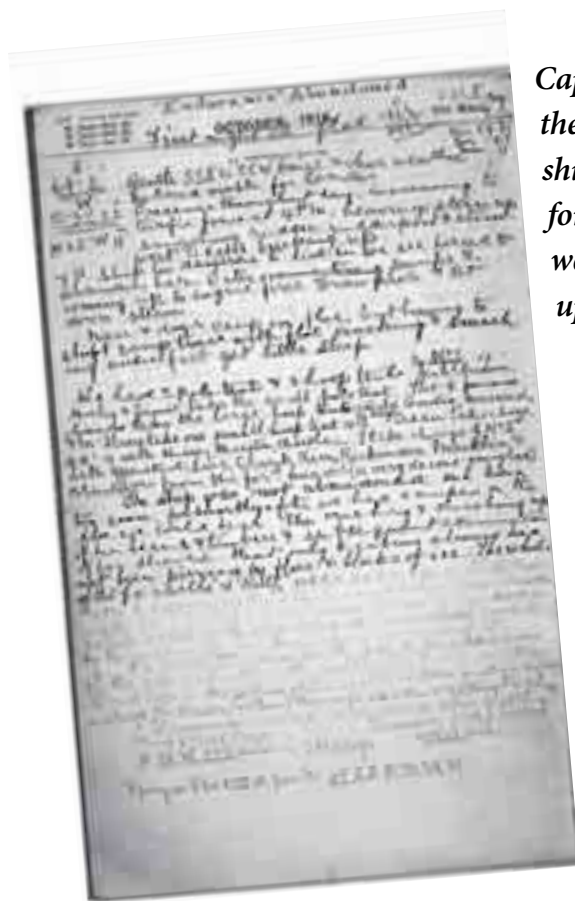
While the rest of the men slept, Shackleton held a conference with his second-in-command, Frank Wild, and with the skipper of *Endurance*, Frank Worsley. With no way to communicate with the outside world, they were completely on their own. If they were going to survive, they would have to rescue themselves.

They came up with a plan: they would drag their three lifeboats, filled with food and equipment, across the ice to Paulet Island. It was 346 miles away. When Shackleton told the men in the morning what lay ahead of them, they reacted calmly. They trusted his leadership. If he said they would walk 346 miles, then that was what they would do.



Problem and Solution

What kind of plan does Shackleton devise after his crew abandons the *Endurance*? Do you think it will be successful? Why or why not?



Captain Frank Worsley's logbook describes the day Endurance was abandoned. "The ship was not abandoned one hour too soon, for shortly after we had camped on the floe we could hear the crushing and smashing up of her beams and timbers..."

The dogsleds, each loaded with 900 pounds of gear, went in the lead. The drivers struggled to hack a path through the jumbled ice field with axes and shovels. Behind came the three boats, pulled in stages by fifteen men in harness. They dragged one boat forward a quarter of a mile, left it, and returned for the second boat. When the third boat was hauled up to join the other two, they began dragging the first boat again.

But it was torture. The surface of the ice was broken and uneven, and the men sometimes sank to their knees in freezing slush while the snow swirled down onto them. After two hours of backbreaking **labor**, they were only a mile from *Endurance*. At this rate, they would never reach Paulet Island. The floe they were on was solid: they would set up camp and stay put.



Ocean Camp was to be their home for the next two months. They returned to *Endurance* for more equipment and food. With lumber rescued from the ship, they built a cookhouse to hold an oil stove.

Then they settled in to wait. Shackleton knew that the ice they were camped on was drifting north and would carry them to the open ocean. Eventually, they would need to take to the lifeboats. Once the ice drifted into warmer waters, it would not be stable enough to camp on. Their only hope of rescue lay across the water. So the carpenter worked on improving the boats and making them more seaworthy.

The Antarctic spring was under way now, and temperatures sometimes climbed into the thirties, which seemed almost tropical to the men. They continued to hunt, to exercise the dogs, and to keep themselves busy with books and card games and chores. Just keeping their gear dry in slushy Ocean Camp was a steady job.

Slowly, the ice drifted away from Antarctica. Large cracks appeared on their ice floe. The surface became soft. November 21 brought an unforgettable event: the broken, twisted wreck of *Endurance* finally slipped through the ice and sank forever. In December, Shackleton decided they should move again, hoping to narrow the distance between themselves and Paulet Island.

But the going was tough: it still took three days to cover seven miles. After two more days of backbreaking effort, it looked as though they were stuck. The ice was mush and unstable. They couldn't go back. They couldn't go forward. They would have to make another camp.

They called this one Patience Camp, and patience was what they needed. The year 1915 was drawing to a close and the new year was before them.



Dragging one of Endurance's lifeboats across the ice.

What lay ahead? Shackleton couldn't be sure. The drift of the ice was haphazard. Sometimes they were carried north, sometimes east or west.

The months of February and March dragged by.

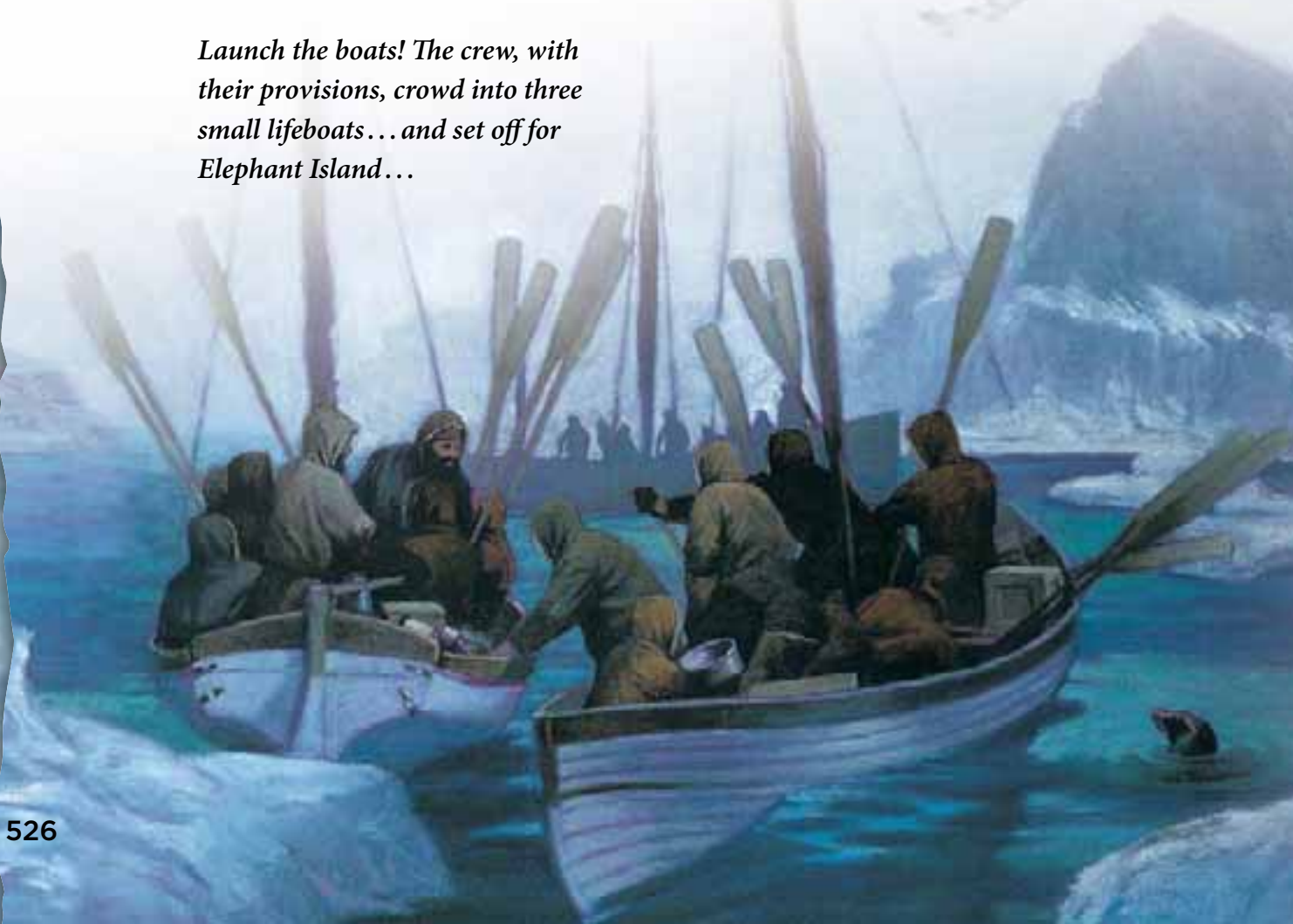
By early April, the ice floe that Patience Camp sat on was alarmingly small, and leads of open sea surrounded them. Killer whales spouted in the water as they hunted seals. The men could feel the rise and fall of the ocean lifting their floe, and some of them began to feel seasick.

On April 8, Shackleton gave the order: "Launch the boats!"

Thousands of birds circled overhead as the crew shoved the boats off the ice. Sitting on their gear and their last crates of food, the men bent to the oars. Waves crashed against icebergs. The three boats picked their way through the maze of ice, pulling north toward the open ocean.

As the light faded, they began looking out for an ice floe to camp on. Shackleton soon spotted one. Luckily, a large seal was sleeping on it, and the men quickly killed it and cooked it for dinner. Then they pitched their tents and tried to get some rest.

Launch the boats! The crew, with their provisions, crowd into three small lifeboats... and set off for Elephant Island...



The next days were filled with danger and hard work. Once they left the shelter of the ice pack, the violence of the open ocean met them like a hurricane. Waves broke over the tiny, crowded lifeboats, and howling winds and sleet lashed the men's faces. The temperature sank. The men could hear ice crackling on their clothes and on the sails that now filled with wind. Sleep was out of the question. They were low on drinking water and short on food. The men were beginning to break.

Shackleton feared that the boats would become separated or that some of the men would die of exhaustion. But ahead of them, somewhere, lay a tiny, rocky islet called Elephant Island. If they could make that, they would be able to rest.

At the limit of their strength, the men saw Elephant Island between tattered rags of mist. They had been in the boats for seven days, climbing giant waves, trying to keep from freezing—seven days with little sleep, little food, no water. When at last they landed, the men fell to their knees on the shore, weeping and laughing.

It was the first time in almost a year and a half that they had stood on solid ground.

Elephant Island was solid ground, but it was also **uninhabited**, and winter was approaching. They would not just wait for a ship to come along and rescue them—it might never happen.

After three days of much needed rest, Shackleton announced that he would take the best boat, the *James Caird*, and sail back to South Georgia Island, over 800 miles away, to get help. He would take Captain Worsley, for his sailing skills; the carpenter, Harry McNeish, in case the boat needed repairs on the way; and three other men. After he reached the whaling station, he would return to rescue the crew.

McNeish reinforced the boat. The men collected fresh water from a glacier on the island. They made the *James Caird* as seaworthy as possible. On April 24, 1916, the *James Caird* shoved off.

For more than two weeks, Shackleton and his five-man crew sailed across the stormiest ocean in the world, facing 100-foot waves, bitter temperatures, and hurricane-force winds. The twenty-two-foot boat was often covered with ice, and the men had to crawl across the decking while the boat heaved and pitched to chop the ice away.

They slept in shifts, crawling into the bow to grab what rest they could. Worsley navigated the best he knew how, although conditions were terrible. In order to calculate their position, he had to be able to see the sun at noon—and with the stormy weather, that was possible only four times. If they lost their way and missed South Georgia Island, they would be headed out into the vast Atlantic Ocean, and that would mean certain death. The men were constantly drenched with salt water and spray as waves broke across the boat. They ached with cold.

Shackleton kept them going with hot meals and drinks—six times a day. Lighting their little camp stove on the bucking boat was tricky, and the moment their cocoa or stew was ready, they put the stove out to save fuel. They learned to eat and drink their meals scalding hot and let the food warm their numbed bodies.

If Shackleton feared they wouldn't make it, he never let on. Day after day he sat at the tiller, scanning the horizon. And with Worsley's almost miraculous skill with compass and sextant, the battered boat and its exhausted crew reached the island on the seventeenth day.

There was just one problem: they had landed on the southwest side of the island, and the whaling station was on the northeast side. The boat was too damaged to risk sailing it around in the stormy waters. But the interior of the island was blocked by a range of jagged mountains and glaciers. They would have to cross it on foot.

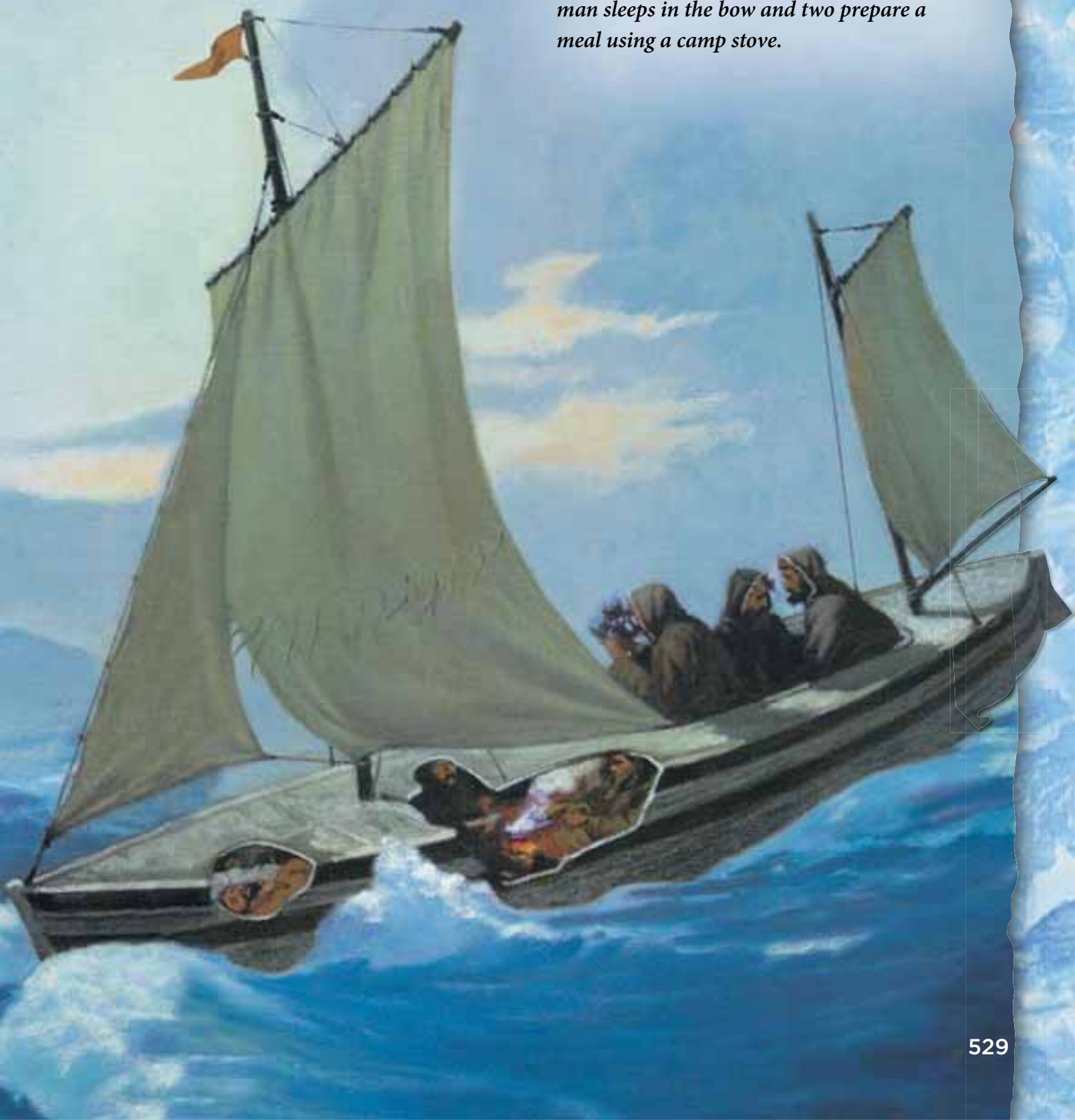
Two of the men were completely broken down and a third would have to stay and look after them. That left Shackleton, Worsley, and second officer Tom Crean to make the hike across South Georgia Island.



Problem and Solution

Once the men landed safely on South Georgia Island, what was the next big problem they faced? How did they overcome it?

The voyage of the James Caird. Only twenty-two feet long, the boat has two masts and three small sails and is steered by a rope yoke attached to the rudder. Worsley calculates the Caird's position by sighting the sun through an instrument called a sextant. The cutaway shows the cramped space below, where one man sleeps in the bow and two prepare a meal using a camp stove.



Their mountaineering equipment wasn't the best gear they could have wished for on a climb such as this one. They had an ax and fifty feet of rope. They studded the soles of their boots with nails for a better grip on the icy peaks. They rested for several days. Then, with food for three days and a small camping stove, they set out, crossing the first snowfield by moonlight.

Months of poor nutrition and inactivity had left them in no shape for a rugged hike. But as the Boss said long afterward, "The thought of those fellows on Elephant Island kept us going all the time.... If you're a leader, a fellow that other fellows look to, you've got to keep going. That was the thought which sailed us through the hurricane and tugged us up and down those mountains."

South Georgia Island had never been crossed before. There were no trails, no clue which passes led to safety and which ones led to sheer drops. The men rested and cooked quick meals, and pushed on. The Boss didn't dare let them stop to sleep, fearing that they might lose the will to continue. On they trudged, hour after hour, through the first night and a day, then another night. By the next morning, they were haggard, exhausted, and trembling with cold, but they were within sight of the eastern coast.

Faintly, from far below, came the sound of the seven o'clock whistle at the whaling station. They had reached safety at last.

Back on Elephant Island, the rest of the crew had no idea of the Boss's triumph. Once the *James Caird* had disappeared from view, the twenty-two remaining members of the expedition set to work. Frank Wild, in charge, decided on the first task. Antarctic winter was sweeping up from the South Pole, and they would have to shelter themselves from it.

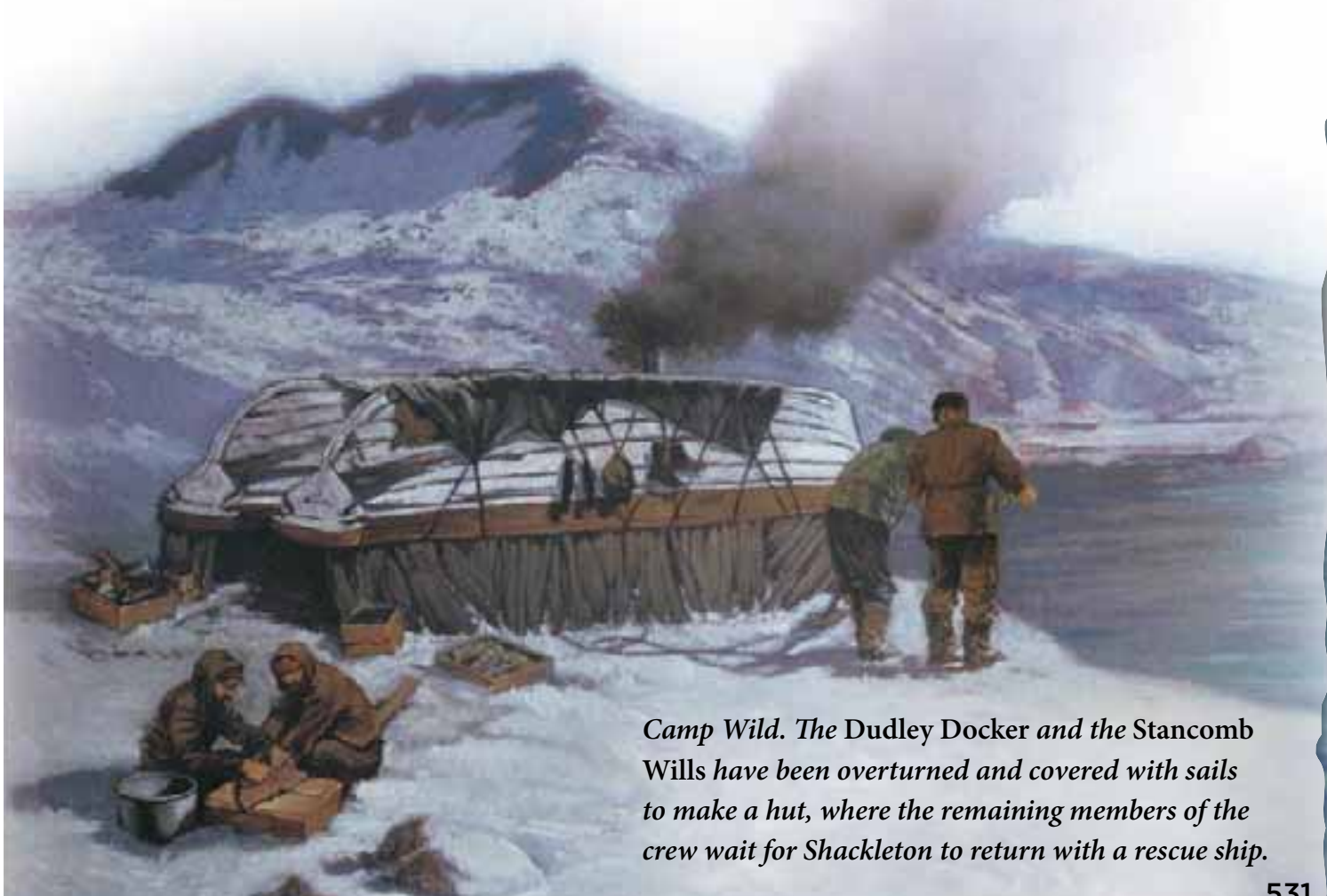
They scavenged the beach for rocks and built a low foundation. Then they took the two remaining boats, the *Dudley Docker* and the *Stancomb Wills*, and turned them upside down over the stones. The tattered canvas sails were lashed across the boats, and the chinks in the walls were stuffed with moss to keep out the wind. They rigged a chimney from some small sheets of metal and installed the blubber stove. When they were done, they had a crude hut to wait out the winter in.

The first storms came quickly. While the winds howled outside their cabin, the men kept each other company. A popular pastime was listing their favorite foods—after a steady diet of seal meat and penguin, the men dreamed of fresh fruit, cakes, and roast beef. The hours passed slowly. The days passed slowly. The weeks passed slowly. Camp Wild was a dreary place.

There were jobs to do: ice had to be chipped off the glaciers and melted for drinking water. There were penguins and seals to hunt.

And there was an operation to be performed. Percy Blackborrow's feet had frozen on the boat journey to Elephant Island, and gangrene had set in. Now the toes on his left foot were dead and black and had to be amputated. There were few medical supplies left. But the expedition's doctors, James McIlroy and Alexander Macklin, performed the surgery by the light of a seal oil lamp.

Outside the hut, the winds screamed over the cliffs of Elephant Island. Sea ice crowded the shore. They knew Shackleton could not return until the winter was over.



Camp Wild. The Dudley Docker and the Stancomb Wills have been overturned and covered with sails to make a hut, where the remaining members of the crew wait for Shackleton to return with a rescue ship.



Rescue! Shackleton returns to Elephant Island to bring home his men. In the background is the Yelcho, the ship that Shackleton borrowed from the Chilean government for the rescue attempt.

Wild tried to keep the men optimistic. Every morning, he rolled up his sleeping bag and said to the men, “Get your things ready, boys. The Boss may come today.”

But as the months went by, they began to wonder if “today” would ever come.

When Shackleton, Worsley, and Crean walked into the whaling station on May 20, they looked like wild men. They were in rags, their faces black from oily smoke, and their hair and beards long and matted. Dogs barked in alarm as they staggered to the station manager’s house.

“Who are you?” asked the manager.

“My name is Shackleton,” the Boss replied.

There was stunned silence. No one had expected to see Shackleton alive, let alone see him come walking down from the peaks of South Georgia Island. But when the Boss told their story, they were treated as heroes.

The three weary men were given hot baths and hot food, and allowed to sleep. As soon as they awoke, Shackleton began arranging a rescue party. Worsley set out in a boat with some of the whalers to pick up the men on the other side of the island.

A steamer was outfitted to make for Elephant Island, and Shackleton left at once. But the weather and the ocean were against him. He was forced to turn back for South Georgia Island. Twice more he tried, but the cruel Atlantic winter was too brutal.

June and July went by, and Shackleton was desperate to get his men. At last, in August, he took a Chilean ship called the *Yelcho* and made once more for Elephant Island.

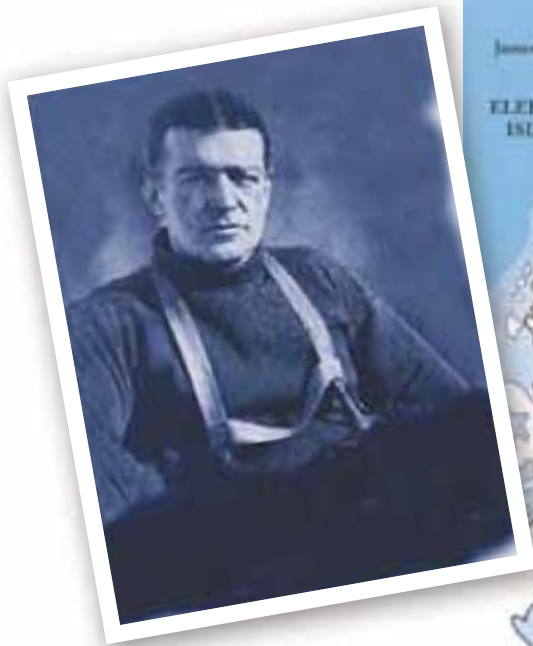
On August 30, George Marston, the expedition artist, was keeping lookout at Camp Wild. On the horizon, he saw the smoke of a ship's funnel. "SHIP HO!" he yelled.

The *Yelcho* steamed into the bay, and a boat was lowered over the side. It was Shackleton. "Are all well?" he shouted as soon as he was near enough.

"YES!"

The men crowded around the Boss as he landed, shaking his hand. "We knew you'd come back," one said to him.

They had all survived. Shackleton had returned to take them home.



EXPLORING WITH JENNIFER ARMSTRONG AND WILLIAM MAUGHAN

JENNIFER ARMSTRONG always felt like a writer, even when she thought about becoming an archeologist. She says, “I always had a good imagination and loved making up stories. It just seemed natural to me that I would become an author.” When she was researching this book, Jennifer went on an unusual field trip to Antarctica. There she saw seals sunbathing, penguins squealing, and Shackleton’s winter “house” still standing a century later. Luckily Jennifer ate her own food instead of the canned food left behind by Shackleton. After surviving the South Pole, Jennifer returned home to New York.



Another book by Jennifer Armstrong:
Shipwreck at the Bottom of the World



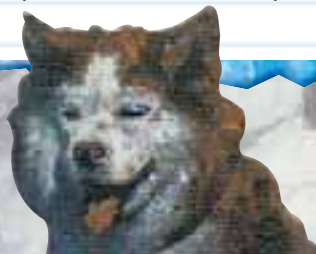
WILLIAM MAUGHAN is both an accomplished artist and a teacher. His art has appeared in books and magazines as well as on television and in the movies. When William isn’t drawing about Shackleton’s heroic trek, he is teaching art to his students—and learning from them at the same time. “Every teacher will admit they learn more from their students than their students learn from them,” William says. William lives in California with his wife and seven children.



Find out more about Jennifer Armstrong and William Maughan at www.macmillanmh.com

Author’s Purpose

What is Jennifer Armstrong’s opinion of Ernest Shackleton? Tell how you know. How do all the facts in the selection serve as clues to the author’s perspective on the explorer?





Comprehension Check



Summarize

Write a summary of *Spirit of Endurance* using your Problem and Solution Map. Be sure to identify the major problems that Shackleton and his men faced, and explain how they solved them.

Problem	
Attempts	Outcomes
Solution	

Think and Compare



1. Why do you think the author chose a problem and solution structure to tell Shackleton's story? **Generate Questions: Problem and Solution**
2. How would you describe Shackleton's crew? Use evidence from the story. **Analyze**
3. What would you name a ship that was about to set out on a long and dangerous **expedition** like Shackleton's? **Apply**
4. Describe the characteristics of a strong leader like Shackleton. Tell why such qualities are important for leaders. **Analyze**
5. Reread "Ice and More Ice" on pages 516–517. Imagine that Shackleton's journey would have taken him to the North Pole instead of to the South Pole. How do you think the search for help for his crew might have been different? Use evidence from both selections to support your answer.

**Reading/Writing
Across Texts**



Social Studies

Genre

Nonfiction Articles present facts about real people, living things, places, situations, or events.

Text Features

A **Primary Source** is information that comes from the time being studied. **Journals** and **Letters** are two types of primary sources. Journals provide daily records written by a person for his or her own use. Letters are a way for people to share information with others through writing.

Content Vocabulary

continent **volume**
observations

THE Bottom OF THE World

by Mary Ann Williams

It may be hard to believe that any part of today's Earth has gone unexplored. People have traveled to almost all of nature's mysterious places. However, the **continent** of Antarctica has held onto many of its secrets.

One reason people have stayed away is the continent's harsh environment. A huge obstacle for explorers is the ice that surrounds the continent. Even during the summers, 95 percent of Antarctica is covered with ice. In addition to ice, it is surrounded by dangerous waters that are hard to navigate. This might explain why centuries went by before explorers, who traveled by ship, were able to reach the unknown continent.

People must also overcome Antarctica's intense weather. During the winter Antarctica remains dark and cold around the clock. The inner part of the continent is the coldest place on Earth with temperatures below -126°F . High winds blow almost continuously and blizzards are frequent. Blowing snow sometimes combines with low clouds to create "whiteouts." During a whiteout, the sky and the ground blur together and people cannot tell which way is up. Despite all these obstacles, countries have now established permanent scientific stations where scientists live and work on the continent. Slowly, the last secrets of Antarctica are being revealed.

Modern-day adventurer Jennifer Owings Dewey is one person trying to solve some of Antarctica's mysteries. She went to Antarctica for four months. During her

trip she kept a journal, a daily record of **observations** and events. Most people keep journals as a way to remember the details of their daily lives.



Journal Entries

Here are two entries from Dewey's journal. Notice that journal entries are dated and written from a first-person point of view.

November 12

For millions of years Antarctica, the fifth largest continent, has been in the grip of an ice age. It is the windiest, coldest, most forbidding region on earth, and I am heading straight for it.

"Goodbye, America," I whisper as the airplane heaves off the ground with a shuddering roar. "See you later."

November 24th Palmer Station Antarctica

- is five and a quarter million square miles; it's larger than Europe.
- has no native human population.
- contains two thirds of the planet's fresh water in the form of glaciers.
- receives less than two inches of snow or rain in a year (precipitation at the South Pole is barely measurable).

- has no land-based predators (other than humans).
- has one hundred million penguins in residence.
- is a world park, a continent devoted to science, a vast outdoor laboratory.
- has freezing temperatures that keep anything from rotting, even old shacks built by early explorers.
- has ice up to three miles thick, covering ninety-eight percent of the land; in winter the **volume** of ice doubles along the edge of the continent.
- has bedrock that is depressed two to three thousand feet by the weight of the ice.
- has only one mammal, the Weddell seal (named for an early explorer), that lives there all year long.
- has only two flowering plants: Antarctic hair grass (*Deschampsia antarctica*) and Antarctic pearlwort (*Colobenthos subulatus*).



Letters

Letters are another way for a person to share experiences and feelings. Here is part of a letter that Dewey wrote home just after she arrived in Antarctica.

November 18th Palmer Station

Dear T.,

Palmer Station is a group of insulated metal buildings, housing fifty people comfortably. The station was built on Anvers Island. You don't know you're on an island because permanent ice fills the gap between Anvers and the mainland.

We learn the rules the first night: no travel alone, except to climb the glacier behind Palmer, flagged with poles to show the safest way up. We sign out when leaving, giving a departure hour and an estimated time of return. We are given walkie-talkies and check with "base" every hour. If we're half an hour off schedule, someone comes looking, unless a storm blows in. If it's too dangerous for anyone to come after us, we are expected to wait out the bad weather.

The sunscreen they pass out is "the only kind strong enough."

We are ordered never to forget to use it.

Tomorrow we learn about the zodiacs, small rubber boats with outboard motors. I'm excited about what comes next, and sleepy.

Much love,

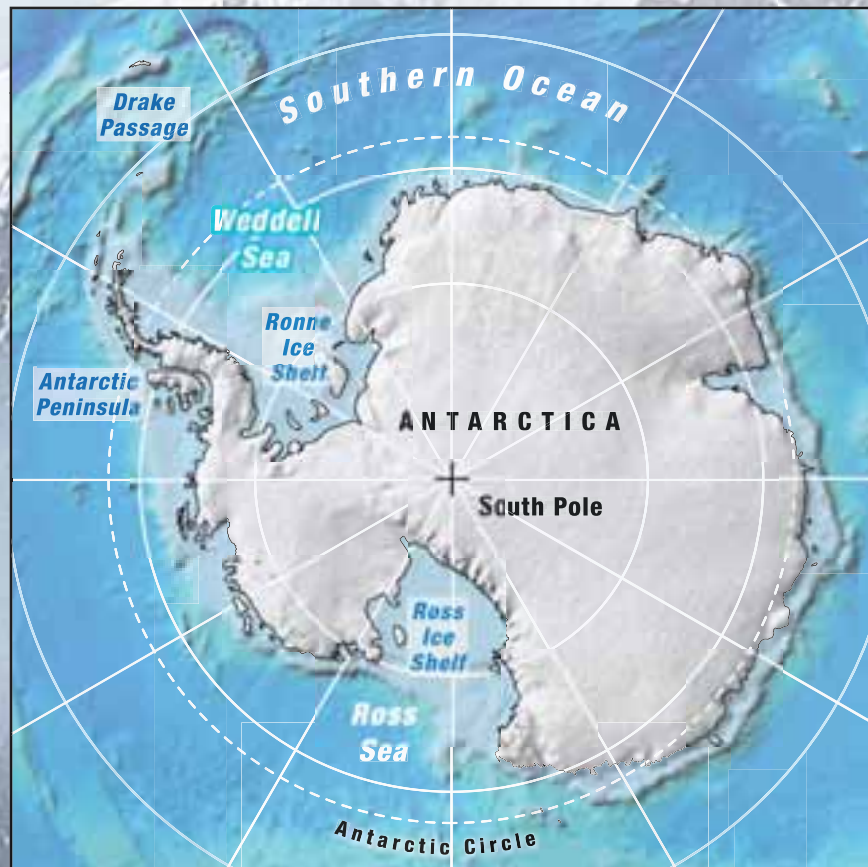
Mom



Young Weddell seal sunning on the beach



Gentoo parent feeding chicks



Connect and Compare



1. Think about the experiences Dewey recorded. What is the value of keeping a journal? **Reading a Journal**
2. If you had the opportunity, would you choose to travel to Antarctica? Support your answer with information from the article. **Evaluate**
3. Think about *Spirit of Endurance* and this article about a modern-day trip to Antarctica. How are the two trips alike, and how are they different? **Reading/Writing Across Texts**

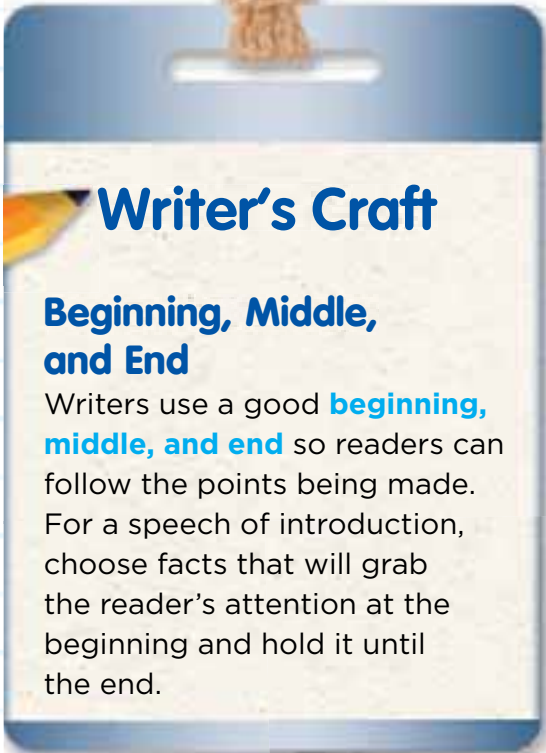


Geography Activity

Research another explorer of Antarctica. Mark the route of the explorer's journey on a map of Antarctica.



Find out more about Antarctica at www.macmillanmh.com



Writer's Craft

Beginning, Middle, and End

Writers use a good **beginning, middle, and end** so readers can follow the points being made. For a speech of introduction, choose facts that will grab the reader's attention at the beginning and hold it until the end.

Write an Introduction Speech

Introducing Dr. Robert Ballard

by Whitney O.

I included interesting points about Dr. Robert Ballard in my speech.

I ended by welcoming Dr. Ballard.

I am honored to introduce our guest today, Dr. Robert Ballard. He explores the deep seas. You might know him from one of his most famous discoveries, the wreck of the R.M.S. Titanic. Dr. Ballard has been on more than 100 deep-sea expeditions and has made countless other discoveries.

At the bottom of the Mediterranean Sea, Dr. Ballard and his team found an amazing, ancient fleet of Roman ships from the first century B.C. He also discovered volcanoes under the sea near California. Because they are so hot, he named them black smokers.

Dr. Ballard reminds people that explorers are still important in today's world. Join me in welcoming our country's most passionate oceanographer.

Your Turn

What famous person would you invite to your school? Choose someone whom you admire. Then prepare a speech to introduce this person to your fellow students. Remember to write a good beginning, middle, and end when you are describing this person and his or her accomplishments. Use the writer's checklist to check your writing.



Writer's Checklist

- ☒ **Ideas and Content:** Did I choose a person whom I truly admire?
- ☒ **Organization:** Does my speech build in energy, with a good **beginning, middle, and end**?
- ☒ **Voice:** Can the reader tell how much I admire this person?
- ☒ **Word Choice:** Did I choose the most precise adjectives possible?
- ☒ **Sentence Fluency:** Did I use a variety of sentence types?
- ☒ **Conventions:** Did I capitalize all proper nouns and adjectives? Did I proofread for spelling errors?